

The following photos exhibit the need for this project. Over the last several decades, the District has increasingly repaired this siphon. This is attributed to the siphon far exceeding the intended design life

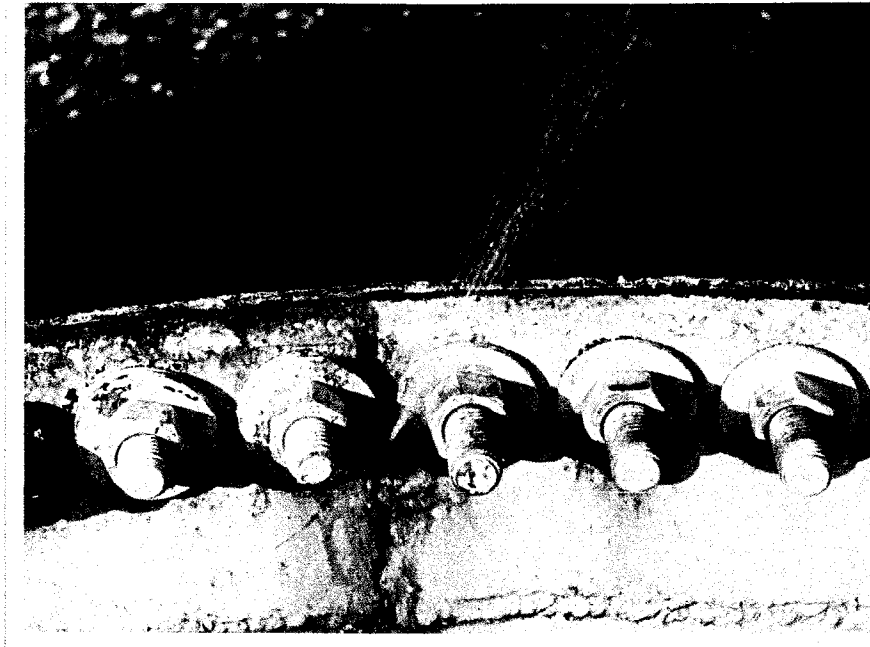


Photo 1 – Leaking expansion joint

Siphon 1 has several bellow style expansion joints throughout the siphon. This expansion joints leak resulting in the loss of water and continual maintenance by the District.



Photo 2 – Seepage around pipe support

Standing water around the concrete pipe support is evidence of water loss from the siphon.



Photo 3 – Leaking expansion joint in field

This photo depicts a leak in one of the several expansion joints in the siphon. The location of the leaks varies from season to season and the maintenance is continual.



Photo 4 – Leaking expansion joint

The District uses nails and J-B Weld to repair leaks in the pipe. This type of repair is not ideal considering the high flows and high pressures in this pipe.

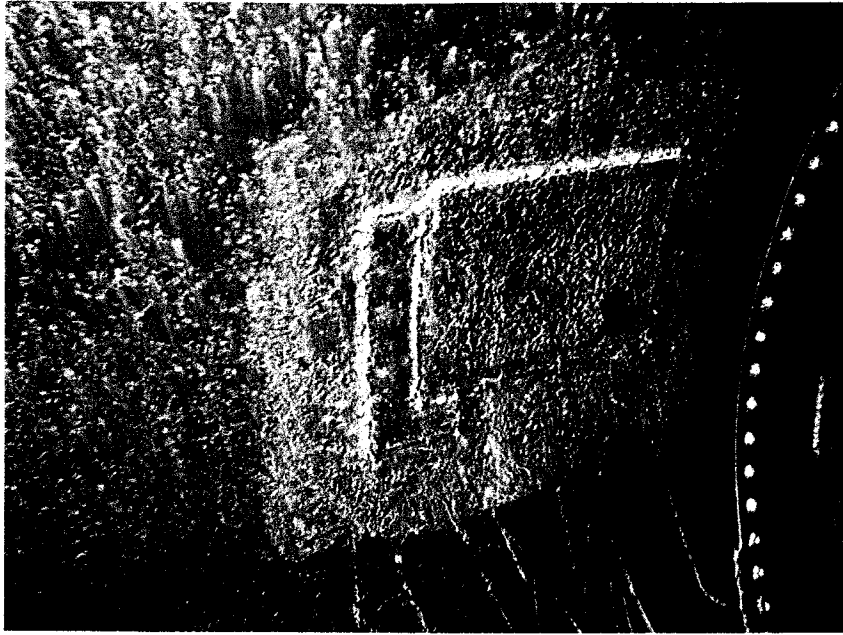


Photo 5 – Patch on patch

This photo shows the pitting caused by cavitation within the pipe and the welded repairs done.



Photo 6 – Failure in 1979

The siphon failed in 1979. Only a small portion of pipe was replaced and much of the outdated pipe is still in use.

GRAVITY FLOW IRRIGATION

The break in the Big Bend main pipe kept at the head of a pipeline for over 100 years that dissects a steep slope, caused a terrible loss below the water. The pipe was not the heavy gauge pipe into a random shape and pulled apart at its north end of head. (Photo by Mark Scharfendick)

Figure 33. A blowout in August, 1979 (Ravalli Republic photo, Ravalli County Museum).